

Notice of Allowability

Application No.

09/879,161

Examiner

Hai C Pham

Applicant(s)

TAKEUCHI, SHUICHI

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 02/04/04.
2. ☒ The allowed claim(s) is/are 1 and 3-23.
3. ☒ The drawings filed on 13 June 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Claim 1 is patentable over the prior art patents and printed publications because of the specific second light beam of the laser imaging apparatus being configured to align the modulating optical system by adjusting a positional relationship of the first light beam with respect to the optical axis of the modulating optical system, wherein the first and the second light beams are emitted from a light source unit, the central axes of the first and second light beams coinciding with each other, the first light beam being non-visible light and the second light beam being a visible light, and wherein the laser imaging apparatus further includes a deflector and an imaging optical system. The combined limitations are not taught by the art of record alone or in combination.

Claim 20 is patentable over the prior art patents and printed publications because of the specific light source unit for use in a laser imaging apparatus, the light source unit emitting a first light beam and a second light beam, the central axes of the first and second light beams coinciding with each other, the first light beam being non-visible light and the second light beam being a visible light, wherein the light source unit includes an excitation light source that emits the second light beam, which serves as an excitation beam, having a visible wavelength, a laser medium that is excited by the excitation beam to emit the first beam, and a switching system that switches optical paths of the laser beam emitted by said excitation light source such that the laser beam emitted by said excitation light source is emitted from said light source unit or the laser

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beam emitted by said excitation light source is incident on said laser medium, the first beam being emitted by said laser medium in response to incident of the excitation beam on said laser medium. The combined limitations are not taught by the art of record alone or in combination.

Claim 21 is patentable over the prior art patents and printed publications because of the specific light source unit for use in a laser imaging apparatus, the light source unit emitting a first light beam and a second light beam, the central axes of the first and second light beams coinciding with each other, the first light beam being non-visible light and the second light beam being a visible light, wherein only the first light beam is directed from the light source unit to a modulating optical system when imaging is performed, and wherein only the second beam is directed from the light source unit to the modulating optical system when alignment is performed. The combined limitations are not taught by the art of record alone or in combination.

Claim 22 is patentable over the prior art patents and printed publications because of the specific light source unit for use in a laser imaging apparatus, the light source unit emitting a first light beam and a second light beam, the central axes of the first and second light beams coinciding with each other, the first light beam being non-visible light and the second light beam being a visible light, wherein a filtering system is provided between the light source unit and a modulating optical system, and wherein said filtering system includes a filtering optical element formed with a first area that transmits only the non-visible light and a second area that transmits only the visible light, said filtering optical element being movable between a first position and a second

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position, said first area being inserted in an optical path between said light source unit and said modulating optical system when said filtering optical element is located at said first position, said second area being inserted in the optical path between said light source unit and said modulating optical system when said filtering optical element is located at said second position. The combined limitations are not taught by the art of record alone or in combination.

Claim 23 is patentable over the prior art patents and printed publications because of the specific light source unit for use in a laser imaging apparatus, the light source unit including a first laser source and a second laser sources for emitting the first and the second laser beams, respectively, and a beam combining optical system combining the first and second beams such that the central axes of the first and second light beams coinciding with each other, and wherein said first laser source and said second laser source are selectively actuated so that one of the first beam and the second beam is emitted at a time. The combined limitations are not taught by the art of record alone or in combination.

Claims 3-19 are allowed because they are directly or indirectly dependent from claim 1 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER

April 24, 2004